

The Effects of Stressors on Academic Performance: Empirical Evidence from Nursing Students at Kokofu Nursing Training College in Ghana

EDWARD KWESI ACQUAH¹

MICHAEL KOBINA GYAN

ALBERT HENRY NTARMAH

University of Cape Coast, Cape Coast, Ghana

Abstract

This study investigated the effects of stressors on the academic performance of nursing students at Kokofu Nursing Training College, Ghana. The sample comprised randomly selected 228 nursing trainees from the college across all levels. We employed multiple linear regression model to estimate the findings. Among our empirical results are: (1) stressors have adverse effects on students' academic performance. (2) Male and female students differ regarding the effects, stressors has on their academic performance. (3) The effect of stressors on students' academic performance differ among first, second and third year students. Based on the empirical findings, appropriate conclusion and recommendations for practice were offered.

Keywords: Stressors, Academic Performance, Nursing Students

1. Introduction

Stress is one of the single psychological constructs that has constantly received global attention in different settings. It is part of the human existence in one way or the other. It can function as a driving force in attaining results. Nevertheless, persistent stress can have adverse

¹ Corresponding author: eddyoppong2001@yahoo.com

effects on performance (Clark, et al., 2014). Human beings experience different forms of stress each day once they encounter possible threats or stressors. The brain introduces series of actions that releases many transmitters, peptides, and hormones throughout their body (Joels et al, 2006), all of which are directed at coping with the stressful situation and bringing their organism back to balance, for example homeostasis (Joels, et al., 2006; Schwabe, et al., 2012). The increasing interest in stress analysis may be due to the fact that we live in a world that has several worrying conditions and stress has been a worldwide development. It has become an integral part of life and sometimes it can be said to be the price we all pay for struggling to be alive. Stress contributes to health problems worldwide. Its presence is felt in home, office, industry, and academic environments. It is a regular component in life despite race or cultural background.

A substantial amount of research exploring students' experience of stress in baccalaureate nursing education have been varied (Dimkpa & Inegbu 2013; Junious, et al., 2010; Yucha, et al, 2009; Beck, et al., 1997). Sources of nursing students' stress have been broadly classified as academic, clinical, and personal/external. However, stressors reported by students, such as feeling overworked and negative relationships with the faculty, often encompass more than one category. In addition, excessive homework assignments for the students, poor facilities, inadequate provision of basic needs by parents and inappropriate student perceptions (Dimkpa & Inegbu 2013), poor teaching (Manson 2014) and academic and examination issues (Bradbury & Miller, 2011) are some more. The need to complete many examinations and assessments, and to meet deadlines creates massive stress; this stress can have a critical impact on learning and the memory process (Joels, et al., 2006; Schwabe, et al., 2012), which are at the heart of our educational system. The manner in which students confront stressful events depends significantly on whether and how they perceive and react to the situations. Perhaps owing to this variability in experience (Monteiro et al., 2014). On the other hand, Yusoff (2015; 2011) categorised stressors among nursing students in six main areas encompassing all the stressors mentioned in earlier literature: academic related stressor (ARS), intrapersonal related stressor (IRS1), interpersonal related stressors (IRS2), learning and teaching related stressors (LTRS), teacher related

stressors (TRS), and group social-related stressors (GSRs). It is a known fact that students are subjected to different kinds of stressors, such as the pressure of academic achievements with an obligation to succeed, an uncertain future, and difficulties of integrating into the system (Yusoff, 2015; Valbona, 2015; Kumar, 2009). Thus, the quest to know which stressors affect students is paramount to researchers and policy makers.

In line with the variability of stressors reported in the literature, the effects of stress on nursing students is varied (Sripowgwiwat, et al., 2018; Aafreen, et al., 2018; Vogel & Schwabe, 2016; Valbona, et al., 2015; Jimenez et al., 2009). For instance Vogel and Schwabe (2016) found stress have both improving and damaging effects on memory, subject on the precise memory process or stage that is affected by stress and the activity profile of the major physiological stress response systems while Aafreen, et al. (2018) found stress to be a negative predictor of students' academic performance. Thus, the literature demonstrate changes over time in the areas of nursing student stress evaluated by researchers. It must be noted that earlier researchers assessed nursing students stress within the clinical setting and the biological process section of the scholars and thus a shift in trend of stress performance literature account for variation in the results (Aafreen, et al., 2018; Vogel & Schwabe, 2016; Jimenez, et al., 2009; Beck & Srivastava, 1991).

Regardless of the variations in literature and findings, most studies suffer from methodological challenges. For instance, a significant number of studies only used frequencies and percentages to report the effects of stress on among students (Sripowgwiwat, et al., 2018; Vogel & Schwabe, 2016; Bilali1 & Bilali, 2015) and these findings may not truly reflect the stress impacts among nursing students. However, an important area such as stress and performance needs rigorous investigations to reveal detail and clear findings needed to make well informed decisions. It is a fact that a good policy cannot be based on research findings that suffer from methodological weaknesses. Thus, our study aim at bringing out empirical findings through systematic, rigorous and generally accepted methodological approach.

Nursing students in Kokofu Nursing Training College are among the nursing students who face several kind of challenges. Such

challenges range from limited facilities through to final year students' online examination. For instance, Freiku (2018) noted that facilities such as water, classroom accommodation and staff bungalows at the Kokofu Nursing Training College needed to ensure sound education and training for the students are limited and this has made the Queen mother of Kokofu appealed to the government and the Otumfuo Education Fund for urgent support. On the examination and academic front, Ayisah (2018) revealed that final year students are likely to face challenges while writing their final exams online owing to the current state of the school's computer lab and other facilities. With these and other challenges within the college, the nursing students are at a high potential for experiencing all kinds of stress that may affect their academic performance. Even though there are growing number of literature on stress among students, its prevalence and influence according to the literature differ. Regardless of the growing evidence of stress literature, empirical work to understand the nature and influence of stress among nursing students at Kokofu Nursing Training College is missing. With this in mind, it is prudent to investigate the influence of stress on academic performance among nursing students of Kokofu Nursing Training College.

This study seeks to examine the effects of stressors on the academic performance of nursing students at Kokofu Nursing Training College. Our study differs from previous studies in many ways. Firstly, our study extends stress and academic performance studies by providing in-depth examination of the effects of stressors on academic performance from the perspectives of nursing students in Kokofu Nursing Training College. Secondly, it measures stressors from a multifaceted domain and further provide empirical evidence of how each of the stressor domains influence students' academic performance. Finally, it tries to account for students characteristics in stress-performance investigations as well as finding out how the domains of stressors differ among students.

This study has a number of theoretical and practical contributions. Firstly, this study adds to the literature by providing empirical evidence from the perspectives of nursing students at Kokofu Nursing Training College thereby widening the scope and applicability of the stress-performance literature. The findings may also clarify ongoing debate about stress-performance relationships. It

may also serve as useful literature for future researchers with this field. In terms of practical contributions, the findings of this study may inform the management of Kokofu Nursing Training College about the extent to which different domains of stressors are impacting on students' academic performance. In addition, the findings may inform both teachers, students and the administrators of the school regarding which stressor domains should be considered. Thus, the findings of this study is intended to influence future policy of the school.

The rest of the paper was organised as follows: section two dealt with materials and methods. Section three focused on results while section four presented discussion of the results. Finally, section five dealt with conclusions and policy for practice.

2.0 Materials and Methods

2.1 Variables

The two main variables used in this study are nursing students' academic performance (NSAP), which is the dependent variable, and stress among nursing students (stressors), which is the independent variable. According to Yusoff (2015; 2011), stress among nursing students can be grouped into six areas: academic related stressor (ARS), intrapersonal related stressor (IRS1), interpersonal related stressors (IRS2), learning and teaching related stressors (LTRS), teacher related stressors (TRS), and group social-related stressors (GSRS). See Table 1 for description of the variables used in this study.

Table 1: Description of Variables

Variable	Description
Dependent Variable	
Nursing Student Academic Performance (NSAP)	The extent to which nursing students have achieved either short-term or long-term educational goals.
Independent Variable - Stressors	
Academic related stressor (ARS)	Stress associated with all forms of academics. For instance, lecture hours, course arrangement, programme package, etc.
Intrapersonal related stressor (IRS1)	This type of stressor occur within a person. For instance, changes in the person's emotions and feelings.
Interpersonal related stressors (IRS2)	IRS2 is the type of stressor that occur between individuals. For instance, stress associated with role expectations.
Learning and teaching related stressors (LTRS)	LTRS is the type of stressors associated with teaching and learning. It mostly focus on classroom interaction.
Teacher related stressors (TRS)	The type of stress associated with the pressure from teachers or instructors usually loaded assignment and other academic related activities.
Group social-related stressors (GSRS)	Stress associated with nursing students working in groups such as project work or group assignment.

Control Variables	
Gender	Nursing students being male or female
Level of students	The stage nursing students have reached in their programme. The student can either be in first year, second year or third/final year students.

2.2 Participants

The participants of the study comprises 228 nursing students out of 626 students in Kokofu Nursing Training College, Ghana. The participants were selected using proportionate random sampling. This allowed equal representation of students across all levels to fully understand the stress nature among the nursing students and how its influence their academic performance. The participants comprises 63.60% females and 36.40% males. In addition, 35.96% were first year students, 32.90% were second year students while 31.14% were third/final year students.

2.3 Instruments

Questionnaires were the main instruments used for this study. According to Abawi (2013), questionnaires allow for collecting objective data in a large sample of the study population (such as the one used in the study) in order to obtain results that are statistically significant especially when resources are limited. The two sets of questionnaires used in this study are Nursing Students' Stressors Questionnaire (NSSQ) from measuring stressors among nursing students and Nursing Students Academic Performance Questionnaire (NSAPQ). The NSSQ was adopted from Medical Students Stressors Questionnaire (MSSQ) developed by Yusoff (2015; 2011) from measuring stressors among medical students. The instruments has six dimensions with 45 items (see Table 2). The NSAPQ was adopted from Academic Performance Questionnaire (APQ) developed by Shahzadi and Ahmad (2011) to measure academic performance among nursing students. NSAPQ has nine items measuring a wide range of academic performance. These sets of questionnaires were used for the study due to: (1) its established validity and reliability; (2) suitability for the participants of the study; and (3) comprehensiveness in measuring the variables used in this study (Sripowgwiwat, et al., 2018; Yusoff, 2015; 2011; Shahzadi & Ahmad, 2011). All the instruments used five point likert scale ranging from '1' being lowest to '5' being highest for their measurements. In addition, pilot study of

the instruments were carried out and the reliabilities are reported in Table 2.

Table 2: Reliability Results of the Instruments

Variable	Number of Items	Cronbach's Alpha
ARS	10	0.914
IRS2	13	0.853
IRS1	7	0.878
LTRS	6	0.844
TRS	3	0.895
GSRs	6	0.793
NSAP	9	0.859

According to Table 2, the reliabilities of the instruments are above 0.7. This is consistent with the reliabilities reported in earlier studies.

2.4 Procedure

Before the actual data collection, permission was sort from the Kokofu Nursing Training College before the actual data collection. Three weeks later, the researchers collected the data from the participants. Data collection took a week. All ethical considerations involving the research and the participants were ensured. This allowed the researchers to clarify the misunderstandings that arose during the data collection.

2.5 Preliminary Checks

As preliminary, we checked the data against multiple linear regression. Our data met the all the assumptions of multiple linear regression except homoscedasticity. Hence, we used robust options to estimate robust standard errors to minimise the error variance in our data. Thus, multiple linear regression is identified as appropriate for this study.

2.6 Multiple Linear Regression Model

Following the preliminary checks, we used multiple linear regression model for our study. To do this, we set a hypothetical function for our dependent and independent variables. Equation (1) illustrates the hypothetical function involving the variables used in this study.

$$NSAP = f (Stress) \tag{1}$$

Thus, Equation (1) implies Nursing Students Academic Performance (NSAP) is a function of stress among nursing students. Based on this function, we model a classical linear regression equation to reflect a linear relationship among the variables. The hypothesised linear model is written as:

$$NSAP = a_0 + \beta_1 Stress + \beta_2 Controls + \mu \quad (2)$$

where NSAP is the dependent variable, Stress represents the vector of independent variables, Controls represents the control variables ($\beta \neq 0$) respectively. Thus, Equation (2) represents a general linear regression model for NSAP, Stress relationship while controlling for other variables and μ represents error term. We can simplify Equation (2) to capture the specific independent variables and the set of control variables:

$$NSAP = a_0 + \beta_1 ARS + \beta_2 IRS_1 + \beta_3 IRS_2 + \beta_4 LTRS + \beta_5 TRS + \beta_6 GSRS + \beta_7 Gender + \beta_8 Level + \mu \quad (4)$$

where NSAP is the dependent variable, $\beta_1 - \beta_6$ represent the coefficient of the independent variables ARS, IRS_1 , IRS_2 , LTRS, TRS, GSRS respectively. $\beta_7 - \beta_8$ represent coefficient of the control variables gender and level of students.

2.7 Diagnostic Tests

In order to ensure accuracy and consistency in our estimates, we perform some diagnostics test on our results. Since our data did not meet homoscedasticity assumption, we used robust standard errors to minimise the error variance in our data. Additionally, we checked for the significance of the joint hypothesis using F-test and high explanatory power using the R-squared.

2.8 Descriptive Statistics

We conducted descriptive analysis to describe the basic features of the data and provides better understanding of our data and results. The two descriptive analysis performed in our study are mean and standard deviation and correlation analysis. Tables 2 and 3 present mean and standard deviation and correlation analysis respectively.

Table 3. Mean and Standard Deviation

Variable	All	Gender		Level of Students		
	(1)	Male (2)	Female (3)	Year 1 (4)	Year 2 (5)	Year 3 (6)
NSAP	3.654 (0.477)	3.638 (0.483)	3.613 (0.471)	3.667 (0.474)	3.630 (0.486)	3.662 (0.476)
ARS	3.671 (0.489)	3.606 (0.506)	3.752 (0.456)	3.605 (0.517)	3.726 (0.449)	3.689 (0.495)
IRS1	3.228 (0.523)	3.150 (0.536)	3.327 (0.492)	3.111 (0.500)	3.274 (0.479)	3.311 (0.572)
IRS2	3.404 (0.526)	3.378 (0.533)	3.436 (0.518)	3.333 (0.524)	3.342 (0.506)	3.541 (0.528)
LTRS	3.763 (0.456)	3.717 (0.486)	3.822 (0.410)	3.716 (0.454)	3.808 (0.396)	3.770 (0.511)
TRS	3.803 (0.431)	3.756 (0.467)	3.861 (0.375)	3.728 (0.448)	3.849 (0.360)	3.838 (0.469)
GSRS	3.776 (0.418)	3.701 (0.460)	3.871 (0.337)	3.716 (0.454)	3.849 (0.360)	3.770 (0.424)
Observation	228	83	145	82	75	71

Standard errors are in parentheses

The result in Table 2 shows that the mean values reported by the participants are generally high (above 3) for both stress and performance. Even though, females reported relatively higher mean score than males except for academic performance but generally both students reported high means. On the contrary, the pattern of mean score is not uniform among students based on the level of students (See Table 3).

Table 4: Correlation Matrix

	NSAP	ARS	IRS1	IRS2	LTRS	TRS	GSRS
NSAP	1						
ARS	0.284	1					
IRS1	0.318	0.346	1				
IRS2	0.226	0.278	0.464	1			
LTRS	0.593	0.518	0.283	0.464	1		
TRS	0.495	0.443	0.298	0.283	0.125	1	
GSRS	0.527	0.430	0.396	0.298	0.139	0.405	1

The correlation matrix shown in Table 4 shows that there exist a relationship among the variables, but such relationship is low especially among the independent variables. The result depicts absence of any multicollinearity among the independent variables.

3.0 Empirical Results

Based on the empirical model used in this study, we used ordinary least square estimator to estimate all our results. We perform series of estimations to examine the phenomenon in detail. The results are presented based on the objectives for this study.

The Effects of Stress on Nursing Students' Academic Performance

This section of the study presents the empirical results of the effects of stress on nursing students' academic performance. We performed hierarchical regression to ensure better understanding of the results. Table 4 presents the result of the effects of stress on nursing students' academic performance.

Table 5: Effects of Stress on Nursing Students' Academic Performance

NSAP	(7)	(8)	(9)	(10)
ARS	-0.145*** (0.035)	-0.142*** (0.036)	-0.139*** (0.037)	-0.139*** (0.037)
IRS1	0.065 (0.052)	0.075 (0.053)	0.074 (0.050)	0.079 (0.051)
IRS2	0.048 (0.055)	0.041 (0.055)	0.060 (0.054)	0.053 (0.055)
LTRS	-0.813*** (0.088)	-0.815*** (0.092)	-0.852*** (0.086)	-0.846*** (0.089)
TRS	-0.309*** (0.099)	-0.323*** (0.104)	-0.332*** (0.096)	-0.337*** (0.099)
GSRS	-0.400*** (0.094)	-0.427*** (0.096)	-0.382 (0.088)	-0.404*** (0.091)
Gender		-0.084* (0.046)		-0.057 (0.052)
Level			-0.059*** (0.023)	-0.048* (0.026)
Cons	0.375** (0.145)	0.422*** (0.152)	0.406*** (0.148)	0.432** (0.153)
F test	168.47***	139.3***	135.28***	121.82***
R-squared	0.547	0.554	0.557	0.560
Observations	228	228	228	228

***: $p < 0.01$, **: $p < 0.05$, *: $p < 0.1$. Robust standard errors are in parentheses.

The results in Table 5 show that academic related stressors, learning and teaching related stressors, teacher related stressors and group social related stressors significantly and negatively affect nursing students' academic performance with or without controlling for students characteristics. For all the estimations, learning and teaching related stressors remained the highest predictor of nursing students' academic performance (see Table 4). On the contrary, academic related stressors remained the weakest significant predictor among other predictors with or without controlling for students characteristics such as gender and level of students.

Extent to which the Effects of Stress on Nursing Students' Academic Performance differ based on Students Characteristics

This section of the work examined the differences in the effects of stressors on academic performance of nursing students based on their characteristics such as gender and level of students.

Table 6: Effects of Stress on Nursing Students' Academic Performance differ based on Students Characteristics

NSAP	Gender		Level of Students		
	Male (11)	Female (12)	Year 1 (13)	Year 2 (14)	Year 3 (15)
ARS	-0.074 * (0.040)	-0.227 *** (0.065)	-0.085** (0.042)	-0.309*** (0.085)	-0.177** (0.063)
IRS1	0.020 (0.064)	0.134 (0.087)	0.051 (0.029)	0.313 (0.164)	-0.074 (0.092)
IRS2	0.059 (0.067)	0.036 (0.093)	0.079 (0.089)	-0.041 (0.118)	0.116 (0.118)
LTRS	-0.774 *** (0.142)	-0.837 *** (0.112)	-1.026*** (0.018)	-0.764*** (0.168)	-0.735*** (0.135)
TRS	-0.408 ** (0.163)	-0.215 * (0.127)	-0.475 (0.292)	-0.200 (0.234)	-0.314*** (0.018)
GSRs	-0.539 *** (0.128)	-0.285 * (0.145)	-0.426 (0.294)	-0.291 (0.212)	-0.447*** (0.141)
Cons	0.256 * (0.138)	0.441 (0.310)	-0.094 (0.098)	0.593 (0.377)	0.460 (0.251)
F test	143.08***	45.95***	74.50***	33.93***	52.53***
R-squared	0.684	0.411	0.786	0.431	0.572
Observations	83	145	82	75	71

***: $p < 0.01$, **: $p < 0.05$, *: $p < 0.1$. Robust standard errors are in parentheses.

According to the results in Table 6, academic related stressors have higher effects on nursing students' academic performance among female students ($\beta = -0.227$, $p < 0.01$) than male students ($\beta = -0.074$, $p < 0.1$), even though both effects are negative. Similarly, the effects of learning and teaching related stressors on nursing students' academic performance are higher for female students ($\beta = -0.837$, $p < 0.01$) than male students ($\beta = -0.774$, $p < 0.01$). On the contrary, teacher related stressors affect academic performance of male students ($\beta = -0.408$, $p < 0.05$) than female students ($\beta = -0.215$, $p < 0.1$). This result is similar to the effects group social related stressors has on both male and female students' academic performance (see Table 6).

Concerning the extent to which the effects of stress on students' academic performance differ among nursing students of different levels, the result does not follow a particular trend. For instance, while the effects of academic related stressors on students' academic performance are strongest for second year students, learning and teaching related stressors affect the academic performance of

first year students the most as compared to second and third year students (see Table 5). Surprisingly, the effects of teacher related stressors and group social related stressors were significant only for third year students ($\beta = -0.314$, $p < 0.01$) and ($\beta = -0.447$, $p < 0.01$) respectively.

4.0 Discussion

The findings of this study provide empirical evidence for stress and performance literature as it discloses the effects of stress on academic performance of nursing students in Kokofu Nursing Training College, Ghana. The study revealed that academic related stressors, learning and teaching related stressors, teacher related stressors and group social related stressors have negative effects on nursing students' academic performance given the prevailing students characteristics such as gender and level of students. Generally, the results revealed that stressors have negative effects on nursing students' academic performance. It implies that regardless of nursing students' gender and level of students, they experience similar stress and these impacts negatively on their academic performance. Additionally, the result revealed that learning and teaching related stressors was the highest predictor of nursing students' academic performance. Thus, the teaching and learning interaction brings more stress than other types of stressors. Unlike other tertiary institutions such as universities and polytechnics where teaching and learning interaction is flexible and students need not to attend lectures continuously, nursing programmes is a package on its own where students attend constant classes with few breaks.

Perhaps, the students prefer the actual university way of attending lectures other than continuously lectures they are experiencing. This finding is consistent with the findings of Aafreen, et al. (2018) who found out that stress is a negative predictor of students' academic stress. Surprisingly, academic related stressors had the weakest effects on students' academic performance. This finding contradicts the earlier finding where learning and teaching related stressors is the strongest predictor of students' academic performance. Probably, after teaching and learning interactions, students are giving less work in the form of assignments and out of school academic activities. Hence, compared to other stressors, the

actual academic related stressors is less. Said differently, it appears academic related activities are either within the scope of the general students' expectations or a little above students' expectations which does not really affect their academic performance. The general finding of this study validates the findings of Rafidah, et al. (2009) where stress has significant performance on students' academic performance.

Furthermore, the results show that academic related stressors compared with male students adversely influence female students' academic performance. Similarly, female students' academic performance is highly influenced by learning and teaching related stressors than male students. These seem to suggest that female nursing students find academic related activities as well as learning and teaching activities to be more stressful and impacts adversely on their academic performance more than their male counterparts. These findings further confirm earlier findings of Maloney, et al. (2012) and Shessel (2003) where stress impacts were high in female students than male students. Unexpectedly, male students rather reported higher adverse effects of teacher related stressors on their academic performance than female students. Logically, female students whose academic performance are adversely influenced by academic related stressors and learning and teaching related stressors are expected to report more adverse effects of teacher related stressors than male students. The result may mean that female students have a relationship that is more cordial with their teachers and ability to handle stress related activities from teachers than male students. Hence, related stressors from teachers are much more handled by the females than males. Similarly, males revealed higher effects of group social related stressors on their academic performance than female students did. Thus, male students feel much stressed in group and social related activities than female students. This finding contradicts that of Sripowgwiwat, et al. (2018) who found significant difference between male and female students in only academic related stressors. Additionally, second year students reported stronger effects of academic related stressors on their academic performance than first and third year students. On the contrary, first year students reported a stronger effect of learning and teaching related stressors on their academic performance compared to second and third year students.

Besides, teacher related stressors and group social related stressors influence the academic performance of only third year students. This is not surprising since final year students are sometimes prone to high pressure from their teachers and uncooperative attitudes of their colleagues during their group and project works. Hence, these pressures put much stress on them and consequently it adversely affects their academic performance. This finding partly confirms the findings of Bilali¹ and Bilali (2015) with teacher and learner relationship stress was high among first year students while the students in third year reported high-perceived stress on their academic performance compared to first and second year students. The findings of this study confirms the study of Sripowgwiwat, et al. (2018) who found significant difference between lower and higher secondary group students in all the six stressors.

5.0 Conclusion and Recommendations for Practice

The overall objective of this study was to investigate the effects of stress on nursing students' academic performance. Based on the findings, the following conclusions are drawn. Firstly, stress adversely affects the performance of nursing students at Kokofu Nursing Training College regardless of their gender and level of students. However, learning and teaching related stressors is the worst enemy to students' academic performance.

Secondly, academic related stressors, and learning and teaching related stressors adversely affect female students' academic performance more, compared with that of male students. On the contrary, teacher related stressors and group social related stressors adversely affects male's academic performance than that of their female counterpart. First year students experience more learning and teaching related stressors effects than other students while second year students' experiences more academic related stressors effects than first and final year students do. However, teacher related stressors and group social related stressors only influence the academic performance of third year students.

Based on the conclusions, the following recommendations are made. Firstly, nursing students at Kokofu Nursing Training College should learn and develop coping strategies to deal with all kinds stressors. The management of Kokofu Nursing Training College

should include coping strategies for stressors in their orientation programme for students' especially first year students. Lecturers should also use different kinds of approaches to minimise stress among students. Secondly, female students should develop more coping strategies for academic related stressors, and learning and teaching related stressors while male students should develop more coping strategies for teacher related stressors and group social related stressors. More so, first year students should develop extra coping strategies for learning and teaching related stressors while second year students' focus more on academic related stressors. However, final year students should develop extra coping strategies for dealing with teacher related stressors and group social related stressors.

REFERENCES

1. Aafreen, M., Maajida, P. V. & Vishnu, G. R. (2018). Effect of stress on academic performance of students in different streams. *Drug Invention Today*, 10 (9), 1776 -1780
2. Abawi, K. (2013). *Data collection instruments (questionnaire and interview)*. Retrieved May 27, 2019, from <http://www.gfmer.ch/SRH-Course-2012/Geneva-Workshop/pdf/Data-collection-instruments-Abawi-2013.pdf>
3. Ayisah F. (2018). Kokofu Nursing Training College Faces Challenge. <http://foxfmonline.com/kokofu-nursing-training-college-faces-challenge/>
4. Beck, D., Hackett, M., Srivastava, R., McKim, E., & Rockwell, B. (1997). Perceived level and sources of stress in university professional schools. *J Nurs Educ.*, 36(4):180–186.
5. Beck, D. L. & Srivastava, R. (1991). Perceived level and sources of stress in baccalaureate nursing students. *Journal of Nursing Education*, 30(3), 180-186.
6. Bilali, V. & Bilali, S. (2015). Students Stress in Nursing School. *International Journal of Science and Research* 4(1), 1409 – 1411
7. Bradbury, J. & Miller, R. (2011). 'A failure by any other name: The phenomenon of under preparedness', *South African Journal of Science* 107(3/4), 112–119. <https://doi.org/10.4102/sajs.v107i3/4.294>

8. Clark, C. M., Nguyen, D. T., & Barbosa-Leiker, C. (2014). Student perceptions of stress, coping, relationships, and academic civility: a longitudinal study. *Nurse Educ.* 39(4):170-4
9. Dimkpa, D. I. & Inegbu, B. (2013). 'Student nurses perception of poor academic performance in Bayelsa State, Nigeria'. *Global Journal of Human Social Science, Linguistics & Education* 13(14), 1–6.
10. Freiku, S. R. (2018). *Ghana: Kokofu Queen mother pushes for development*. Retrieved April 18, 2019, from <https://allafrica.com/stories/200806161338.html>
11. Joels, M., Pu, Z. W., Wiegert, O., Oitzi, M. S., & Krugers, H. J. (2006). Learning under stress: How does it work? *Trends in Cognitive Sciences*, 10(4), 152-158.
12. Junious, D., Malecha, A., Tart, K. & Young, A. (2010). Stress and perceived faculty support among foreign-born baccalaureate nursing students. *J Nurs Educ.* 49(5): 261–270.
13. Kumar, S., Dagli, R. J., Mathur, A., Jain, M., Prabu, D., & Kulkarni, S. (2009). Perceived sources of stress amongst Indian dental students. *Eur J Dent Educ.* 13:39-45
14. Maloney, E. A., Waechter, S., Risko, E. F., & Fugelsang, J. A. (2012). Reducing the sex difference in math anxiety: The role of spatial processing ability. *Learning and Individual Differences*, 22(3), 380-384.
15. Manson, T. A. (2014). 'A relationship between matriculation English results and academic performance in nursing students at the Kwazulu-Natal College of Nursing', (Master, Dissertation, Durban University of Technology). Retrieved April 18, 2019, from https://ir.dut.ac.za/bitstream/10321/1247/1/MANSON_2014.pdf
16. Rafidah, K., Azizah, M.A., Mohd, M., & Chong, C. (2009). Stress and academic performance: Empirical evidence from university students. *Acad Educ Leadersh J*:13: 37
17. Schwabe, L., Joels, M., Roozendaal, B., Wolf, O. T., & Oitzi, M. S. (2012). Stress effects on memory: An update and integration. *Neuroscience & Biobehavioral Reviews*, 36(7), 1740-1749.
18. Shahzadi, E. & Ahmad, Z. (2011). A study on academic performance of university students. Retrieved April 15, 2019, from 10.13140/2.1.3949.3126.

19. Shessel, M. (2003). Stress: Verbal and non-verbal performance tasks. *The Huron University College Journal of Learning and Motivation*, 41(1), 247-261.
20. Sripongwiwat, S., Bunterm, T. & Tang, K. N. (2018). An investigation of learning stressors among secondary school students: A case study in northeast Thailand. *Kasetsart Journal of Social Sciences* 39, 197-206
21. Vogel, S., & Schwabe, L. (2016). Learning and memory under stress: Implications for the classroom. *Nature Partner Journals Science of Learning*, 1, 16011. <http://dx.doi.org/10.1038/npjscilearn.2016.11>.
22. Yucha, C., Kowalski, S. & Cross C. (2009). Student stress and academic performance: home hospital program. *J Nurs Educ.*, 48(11):631–637.
23. Yusoff, M. S. B. (2011). The validity and reliability of secondary school stressor questionnaire (3SQ) in identifying stressor among adolescents in secondary school. *International Medical Journal*, 18(2), 99-105.
24. Yusoff, M. S. B. (2015). Psychometric properties of the secondary school stressor questionnaire among adolescents at five secondary schools. *Journal of Taibah University Medical Sciences*, 10(2), 159-168.